

Short Baseline Neutrino Project BASIS of ESTIMATE FORM (BoE)		SBN-docDB Number:	
		Date of Estimate: 22.12.2014	
		Prepared by: I. Kreslo	
WBS Number: 2.3.6		Control Account (CTC):	
		CAM:	
WBS Title: Design, review and fabrication of laser calibration system			
WBS Dictionary Definition:			
Cost Type: <input checked="" type="checkbox"/> M&S <input checked="" type="checkbox"/> Labor		Cost Estimate Method: <input checked="" type="checkbox"/> Engineering Estimate <input checked="" type="checkbox"/> Prior Purchase or Experience <input type="checkbox"/> Catalog Price Source: _____ <input type="checkbox"/> Vendor Quote or Vendor Survey <input type="checkbox"/> Other (Please describe) : _____	
Supporting Documents: QuoteContinuum.pdf, QuoteThermionics.pdf, InvoiceThorlabsHeidenhain.pdf, InvoiceAltechnaThermionics.pdf			
Task Duration: 600 days			
Task M&S Cost (FY15): 420000 Task M&S Contingency (% and the contingency rule applied): 20 % (M3, M4)		Task Labor (Resource type & work hours or % for duration of task): Task Labor Contingency (% and the contingency rule applied):	
Assumptions: <ul style="list-style-type: none"> • See SBN-doc-186 for project key assumptions • Costs are in FY2015 dollars and do not include indirects. • Durations are in working days. • 85% efficiency assumed for labor hours. 1 FTE = 1768 hours for an average year. • Add your assumptions here for the BOE 			

Task Table

WBS	WBS Title	Duration (days)	M&S (\$)	M&S Contingency (% and rule)	Labor resource and % effort or total hours for each labor resource	Total labors (hours)	Labor Contingency (% and rule)
2.3.6.1	Adaptation of the MicroBooNE LCS to LAR1ND cryostat	150	\$10,000	30% and M4	Mech. Eng. - 400 hours;	400	25% and L4
2.3.6.2	Fabrication of components of LCS	450	\$410,000	20% and M3	Mech. Eng. - 2400 hours; Tech. - 1000 hours	3400	15% and L3
	Total		\$420,000			3800	

Details of Estimate

The estimate is based on the previous experience of constructing similar system for MicroBooNE experiment. Attached are the quotations and orders of the majority of components, needed to construct 4 laser beam-steering units for LAR1ND cryostat. The MicroBooNE design will be adapted to LAR1ND cryostat by an Engineer (150 days). For the construction we foresee involvement of an Engineer and Technical personnel for total of 3400 hours.

Contingency

The contingency basis is M4 for the adaptation of the MicroBooNE design to the LAR1ND geometry, and M3 for the main manufacturing cost, based on the previous experience of constructing similar system for MicroBooNE experiment.

Comments